

## CLAIMS:

1. Device for recording information in a track (11) on a record carrier (4), the device comprising:
  - a head (22) for generating a beam of radiation from a radiation source for writing marks and spaces between the marks, the marks and spaces each having a nominal run length of a predetermined number of bits, and the marks having a multitude of different run lengths for representing the information, the different run lengths being within a range of run lengths and the range including at least one short run length and at least one long run length that is longer than the short run length,
    - radiation source control means (29) for controlling the power of the radiation source during said writing in accordance with a power pattern in dependence on the run length, the power pattern for a mark of the long run length comprising
      - at least three pulses having a write power,
      - at least one first intermediate period between the pulses having a bias power, and
      - at least one second intermediate period between the pulses having a reduced bias power, the at least one second intermediate period including the intermediate period before the final pulse of the power pattern.
2. Device as claimed in claim 1, wherein the reduced bias power is gradually reduced in dependence on the run length, or the reduced bias power comprises at least two reduced bias power levels.
3. Device as claimed in claim 1, wherein the reduced bias power is applied from a predetermined moment with respect to the start or the end of the power pattern.
- 25 4. Device as claimed in claim 1, wherein the long run length is substantially twice the minimum run length in the range of run lengths.

5. Device as claimed in claim 2, wherein the minimum run length in the range of run lengths is three run lengths units (3T), and the long run length is seven run lengths units (7T).

5 6. Device as claimed in claim 1, wherein a duty cycle of the pulses and intermediate periods is substantially 50% and the bias power is between 40% and 50% of the write power, and the reduced bias power is between 20% and 35% of the write power, in particular the bias power being substantially 45% of the write power, and the reduced bias power being substantially 30% of the write power.

10 7. Device as claimed in claim 1, wherein the power pattern for a space comprises a cooling period having a cooling power, in particular the cooling power being less than 1% of the write power.

15 8. Method of controlling the power of a radiation source during recording information in a track on a record carrier, the method comprising:  
- writing of marks and spaces between the marks, the marks and spaces each having a nominal run length of a predetermined number of bits, and the marks having a multitude of different run lengths for representing the information, the different run lengths being within a range of run lengths and the range including at least one short run length and at least one long run length that is longer than the short run length,  
- controlling the power of the radiation source during said writing in accordance with a power pattern in dependence on the run length,  
the power pattern for a mark of the long run length comprising  
20 - at least three pulses having a write power,  
- at least one first intermediate period between the pulses having a bias power, and  
- at least one second intermediate period between the pulses having a reduced bias power, the at least one second intermediate period including the intermediate period before the final pulse of the power pattern.

25 9. Record carrier of a recordable type comprising a track for recording information, the recording comprising  
- writing of marks and spaces between the marks, the marks and spaces each having a nominal run length of a predetermined number of bits, and the marks having a multitude of

different run lengths for representing the information, the different run lengths being within a range of run lengths and the range including at least one short run length and at least one long run length that is longer than the short run length,

- controlling the power of the radiation source during said writing in accordance with a power pattern in dependence on the run length,
  - the power pattern for a mark of the long run length comprising
    - at least three pulses having a write power,
    - at least one first intermediate period between the pulses having a bias power, and
    - at least one second intermediate period between the pulses having a reduced bias power, the
  - 10 at least one second intermediate period including the intermediate period before the final pulse of the power pattern,
- the record carrier comprising control information for setting the reduced bias power.